

Work Order ID 144522

April 19, 2016 3:11:32 PM

144522

Page 1

Item ID: D3186-1M Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Spacepod Door LH
Start Date: 4/20/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 7/5/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: SA Date: 20160420 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3186	Rev E

100	PURCHASING	0.00							
-----	------------	------	--	--	--	--	--	--	--

100

Purchasing

Purchasing

Memo

Issue P/O:

Description: D3186-1M Door

Ship to Delastek (1) D0600-XXX label

Batch:

Supplier: Delastek

Conformity Certificate and Process sheet required

h 1614.21

110	Receive & Inspect for Damage & Mat'l Certs	0.00							
-----	--	------	--	--	--	--	--	--	--

110

Packaging

Packaging

Memo

Ensure a copy of certification of conformity and process sheet from Delastek is attached.

QZ

AUG 12 2016

**DAS
13
9-89**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

Work Order ID 144522

April 19, 2016 3:11:32 PM

144522

Page 2

Item ID: D3186-1M Accept *N900040100* Setup Start *NS1*
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 Item Name: Spacepod Door LH
 Start Date: 4/20/2016 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 7/5/2016 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							DAS 16 9-89
120									16/08/12
QC	Memo	0.00							
Quality Control	Check for void spot and pins. Ensure surface of doo is smooth, no dimples for drilling.								
130	Identify as per dwg & Stock Location: CAZ	0.00							DAS 02 9-89
130									16-08-16
Packaging	Memo W/o 144520	0.01							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							DAS 21 9-89
140									AUG 24 2016
QC	Memo	0.10							
Quality Control									

DAS
21
9-89
AUG 23 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

April 19, 2016 3:11:58 PM

Page 1

Work Order ID: 144522

144522

Parent Item: D3186-1M

D3186-1M

Parent Item Name: Spacepod Door LH

Start Date: 4/20/2016

Required Date: 7/5/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A New Issue 06-12-04 ec
IPP rev D rv D dwg 07.03.07 ec

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3186-1P		Purchased	No			110	Each	0.0000	1	1			
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D3186-1P

Spacepod Door

B144522

**

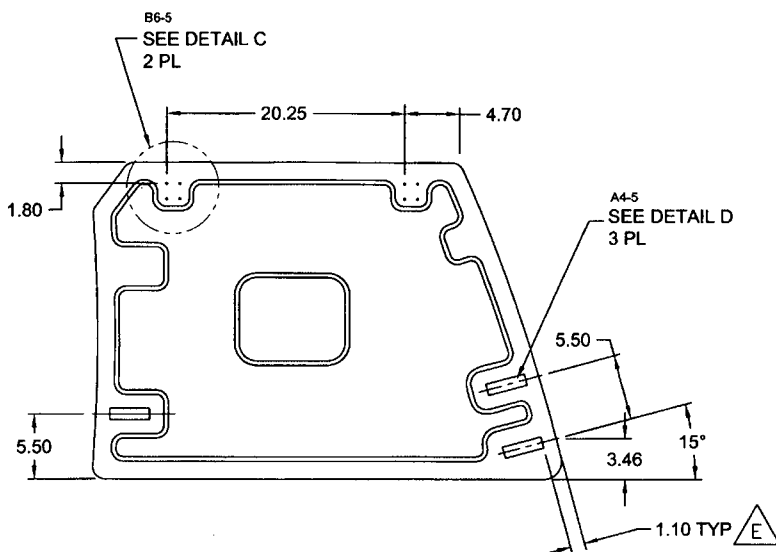
DAS
13
9-69

AUG 12 2016

8 7 6 5 4 3 2 1

D
C
B
A

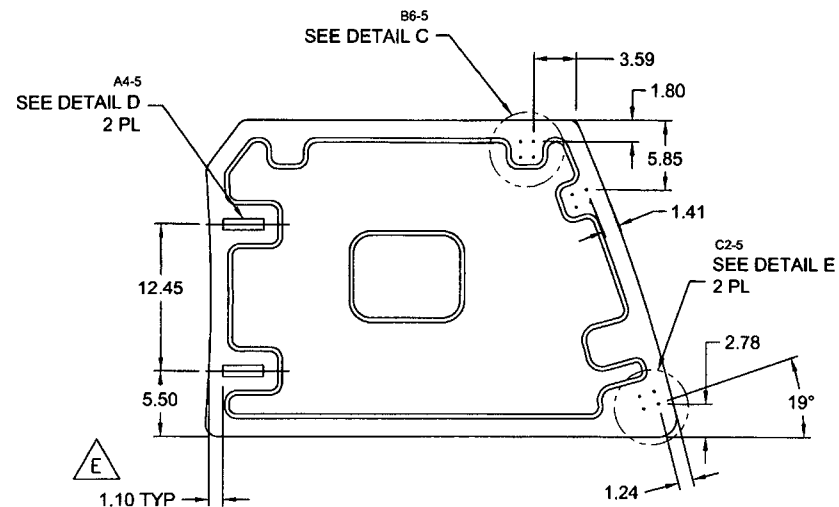
D
C
B
A



D3186-1 SPACEPOD DOOR, LH
MAKE FROM D3186-1M

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A



D3186-3 SPACEPOD DOOR, LH
MAKE FROM D3186-1M

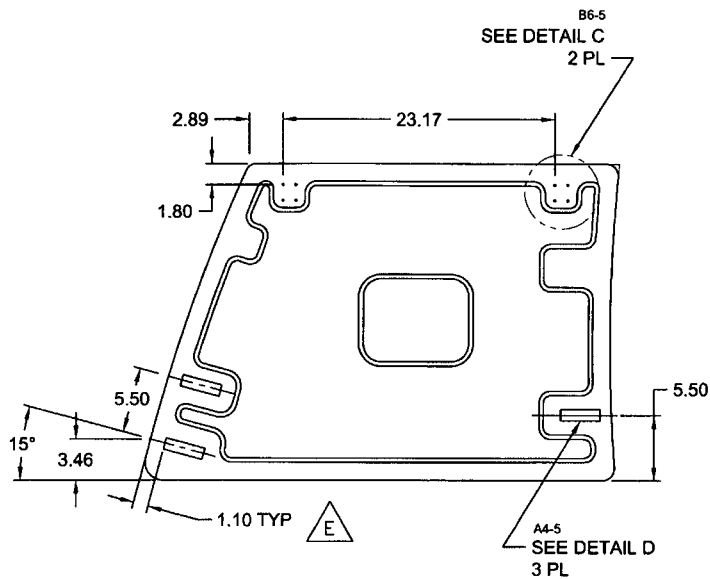
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2009-09-09

20160420

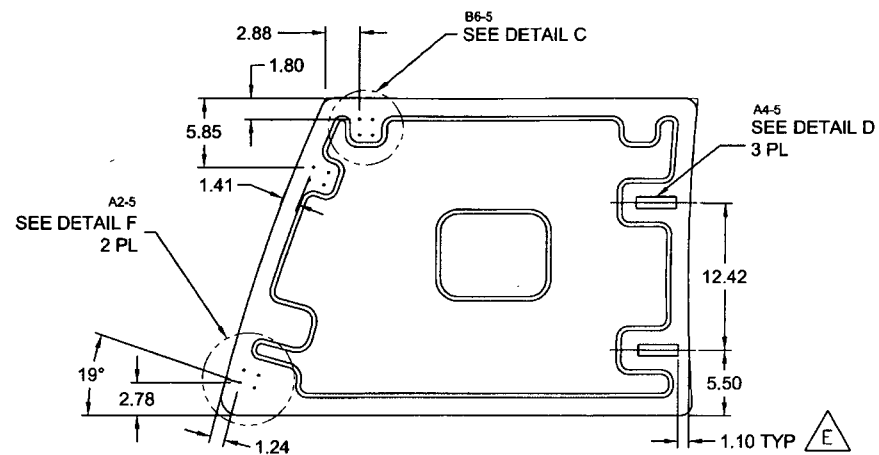
Sta
144522

REV.	DESCRIPTION	BY	DATE
E	DRAWING UPDATED TO CURRENT STANDARDS. 1.10 WAS 0.98 (ZN B5-1, B4-1, B7-2, B1-2); R0.12 WAS 0.125 (ZN B5-5); REF PAR 09-026	RF	09.07.08
D	UPDATE DIMENSIONS	LE	07.02.22
C	REMOVED D0600-XXX LABELS	LE	06.12.13
B	DIMS UPDATED TO MATCH PRODUCT FOAM PATTERN UPDATED D3186-1M/2M/3/4 ADDED	LE	08.09.25
A	NEW ISSUE	CP	03.03.27
DESIGN	DS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. REV. E D3186 SHEET 1 OF 5 TITLE SCALE SPACEPOD DOOR NTS COPYRIGHT © 2003 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. IT IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN	RF		
CHECKED	JP		
MFG. APPR.	JP		
DE APPR.	JP		
DATE	09.07.08		

8 7 6 5 4 3 2 1



D3186-2 SPACEPOD DOOR, RH
MAKE FROM D3186-2M



D3186-4 SPACEPOD DOOR, RH
MAKE FROM D3186-2M

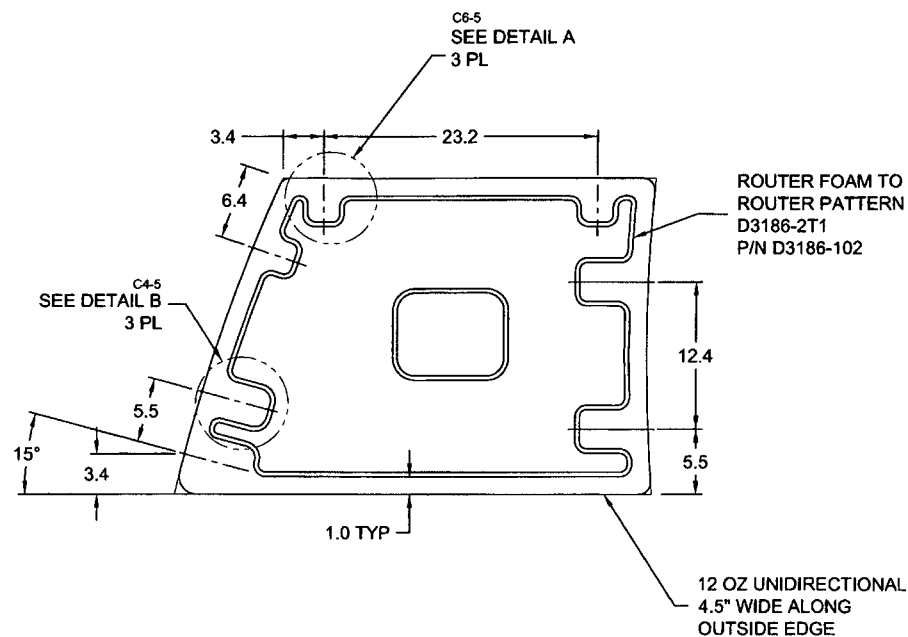
RELEASED
2009-09-09

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

DESIGN	DS	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>[Signature]</i>	D3186	SHEET 2 OF 5
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SPACEPOD DOOR	NTS
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9 OZ SATIN (9 SQ FEET)
9 OZ SATIN (9 SQ FEET)
FOAM
9 OZ SATIN (9 SQ FEET)
12 OZ UNIDIRECTIONAL
9 OZ SATIN (9 SQ FEET)
RESIN (35-45% BY WEIGHT)
PEEL PLY



1) MATERIAL:

RESIN = EPOCAST 50-A/9816 OR DERA KANE 470-36/411/510A40
FOAM = 3/8", A500 CORE-CELL OR DIVINYCELL OR AIREX OR KLEGECELL
FIBRE = 9.7 OZ 7781 WEAVE "S" GLASS ("9 OZ SATIN")
12 OZ UNIDIRECTIONAL FIBERGLASS ("12 OZ UNIDIRECTIONAL")
LAMINATE PER DART QSI 006 4.0
LAMINATION SCHEDULE PER THIS DRAWING

2) FINISH: FINISH INSIDE/OUTSIDE WITH DUPONT HIGHBUILD GREY PRIMER 1144-S

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: NONE

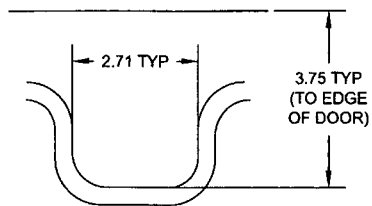
7) WEIGHT: 7.0 lbs

8) USE MOLD DT8006 FOR DOOR LAYUP

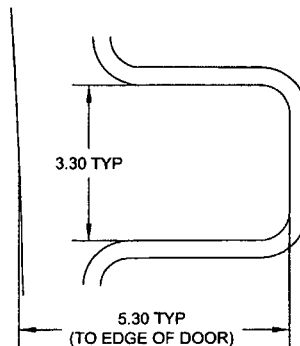
D3186-2M SPACEPOD DOOR AS MOLDED

RELEASED
2009-09-09

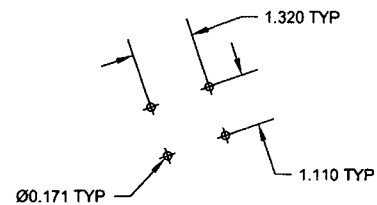
DESIGN	DS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	RF	DRAWING NO.	REV. E
MFG. APPR.		D3186	SHEET 4 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SPACEPOD DOOR	NTS
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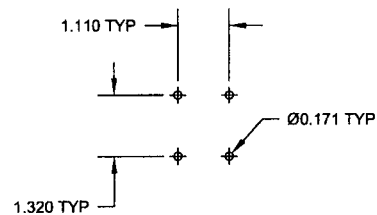
DETAIL A D6-3
SCALE 4X D4-4



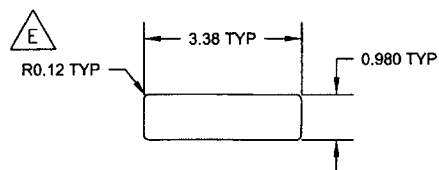
DETAIL B C6-3
SCALE 4X C6-4



DETAIL E C1-1
SCALE 4X

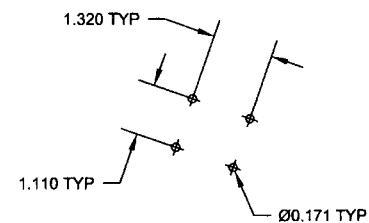


DETAIL C D7-1
SCALE 4X D3-1
D6-2
D3-2



NOTE: ENSURE THAT CUTOUT IS
PERPENDICULAR TO EDGE OF DOOR

DETAIL D C5-1
SCALE 4X D4-1
B6-2
C2-2



DETAIL F C4-2
SCALE 4X

RELEASED
2009-09-09

DESIGN	DS	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>[Signature]</i>	D3186	SHEET 5 OF 5
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SPACEPOD DOOR	NTS
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FDC Composites inc.
45, Chemin de L'Aéroport
Local 26
Saint-Jean-sur-Richelieu (QC)
J3B 7B5
Tél.: 450 357-1344

Bon de livraison

25/05/2016

Commande : 2454
Référence : PO #32117/2

Client : Dart

DART AEROSPACE
1270 Aberdeen Street
Hawksbury, ON
K6A 1K7

Expédier à
DART AEROSPACE LTD
1270 Aberdeen Street
Hawksbury, ON
K6A 1K7
Tél.: 1 613 632-9577

No item	Description	Qté	Qté livrée	Qté B/O
D3186-1P	Spacepod Door PO item: 32117/2 Lot: 2016-05-12 As per DRWG: D3186 REV.E CANADIAN CURRENCY	1		

CZ16108112

Transport : _____

Réf. : _____

Nb colis : _____

Marchandise reçue : _____



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CERTIFICATE of CONFORMITY

Customer Name: Dart Aerospace.

Customer P/O Number: 32117

<u>PO Item</u>	<u>Qty</u>	<u>Part number</u>	<u>Dwg number Part</u>	<u>Dart ID</u>	<u>FDC ID</u>	<u>Lot</u>
2	1	D3186-1P Spacepod Doors	D3186 Rev.E	TBD	DAE016-001	2016-05-12

I hereby certify that the workmanship, material and the processes used in the manufacture of the above part(s) supplied are in accordance with the requirements of the applicable Purchase Order.

Signature:

Marjorie Geoffrion, Quality Manager

Date: 2016-05-25



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO33150**

Purchase Order Date 7/25/2016

PO Print Date 7/25/2016

Page Number 1 of 2

Order From :

VC-FDC01

FDC COMPOSITES INC.
45 CHEMIN DE L'AEROPORT
LOCAL 26
ST-JEAN-SUR-RICHELIEU, QUEBEC J3B 7B5

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 450-357-1344 ext303

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

Buyer

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency CAD

FOB Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	15002-00 1 x D3186-2M & 1 x D3188-2P only <i>11704 141765 0216/08111</i>	Repair/Remanufacture of D3186-2, D3188-2	8/5/2016 No 8/5/2016		1.00	\$3,560.00	\$3,560.00
Line Total:							\$3,560.00
2	15002-00 1 x D3186-1M & 1 x D3188-3M only <i>144522 144521 B</i>	Repair/Remanufacture of D3186-1, D3188-3	8/5/2016 No 8/5/2016		1.00	\$3,560.00	\$3,560.00
Line Total:							\$3,560.00
3	15002-00	Temporary mold and jigs	8/5/2016 No 8/5/2016		1.00	\$4,100.00	\$4,100.00

Note:

7/25/2016



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO33150**

Purchase Order Date 7/25/2016

PO Print Date 7/25/2016

Page Number 2 of 2

Order From :

VC-FDC01

FDC COMPOSITES INC.
45 CHEMIN DE L'AEROPORT
LOCAL 26
ST-JEAN-SUR-RICHELIEU, QUEBEC J3B 7B5

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 450-357-1344 ext303

Ship To Contact

Ship To Phone

Ship Via: —

Ship Acct:

Buyer

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency CAD

FOB Destination-Collect

Line Total: \$4,100.00

PO Total: \$11,220.00

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 1

Change Date: 7/25/2016

FDC Composites inc.
45, Chemin de L'Aéroport
Local 26
Saint-Jean-sur-Richelieu (QC)
J3B 7B5
Tel. : 450 357-1344

Shipping Order

10/08/2016

Order : 2516
Reference : PO #33150/1-2

Customer: Dart

DART AEROSPACE
1270 Aberdeen Street
Hawksbury, ON
K6A 1K7

Ship To
DART AEROSPACE LTD
1270 Aberdeen Street
Hawksbury, ON
K6A 1K7
Tel. : 1 613 632-9577

Item No.	Description	Qty	Qty. Delivere	B/O Qty
D3188-2P	Spacepod Body PO item: 33150/1 Lot: 2016-08-02 Repair/Remanufacture of D3188-2 D3188 Rev. G	1		
D3186-2P	Spacepod Door PO item: 33150/1 Lot: 2016-08-02 Repair/Remanufacture of D3186-2 D3186 Rev. E	1		
D3188-3P	Spacepod Body PO item: 33150/2 Lot: 2016-08-03 Repair/Remanufacture of D3188-3 D3188 Rev. G	1		
D3186-1P	Spacepod Door PO item: 33150/2 Lot: 2016-08-03 Repair/Remanufacture of D3186-1 D3186 Rev. E	1		
15002-00	Temporary mold and jigs	1		

NOTE: REPAIR/REMANUFACTURE
MADE AS PER DART AEROSPACE
INSTRUCTIONS.

C216108/12

Shipping : _____
Package No : _____
Merchandise Received: _____

Ref. : _____



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CERTIFICATE of CONFORMITY

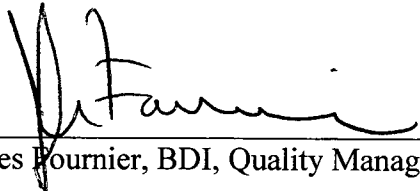
Customer Name: Dart Aerospace.

Customer P/O Number: 33150

<u>PO Item</u>	<u>Qty</u>	<u>Part number</u>	<u>Dwg number Part</u>	<u>Dart ID</u>	<u>FDC ID</u>	<u>Lot</u>
1	1	D3188-2P Spacepod Body	D3188 Rev.G	TBD	DAE014-004	2016-08-02
1	1	D3186-2P Spacepod Doors	D3186 Rev.E	TBD	DAE013-004	2016-08-02
2	1	D3188-3P Spacepod Body	D3188 Rev.G	TBD	DAE017-002	2016-08-03
2	1	D3186-1P Spacepod Doors	D3186 Rev.E	TBD	DAE016-002	2016-08-03

NOTE : Repair / Remanufacture made as per Dart Aerospace instructions.

I hereby certify that the workmanship, material and the processes used in the manufacture of the above part(s) supplied are in accordance with the requirements of the applicable Purchase Order.

Signature: 
Jules Fournier, BDI, Quality Manager

Date: 2016-08-10